

App'l. No. 09/611,112

Amdt. Dated January 9, 2004

Reply to final Office Action of October 9, 2003

CLAIM AMENDMENTS

1 (currently amended): A method for allocating a transmission capacity to connections in a radio communication system, the method which comprises:

allocating a transmission rate to a connection established via a radio communication interface between a base transceiver station and a subscriber station in dependence ~~of~~ on a connection-specific path loss of the radio communication interface; and

allocating the transmission rate in dependence on an interference situation at a location of the subscriber station in a radio cell of the base transceiver station.

2 (original): The method according to claim 1, which comprises allocating the transmission rate in dependence of a distance between the subscriber station and the base transceiver station.

3 (currently amended): The method according to claim 1, ~~which comprises allocating the transmission rate in dependence of an~~ wherein the interference situation at a location of the subscriber station comprises at least one of intracell interference and intercell interference ~~in a radio cell of the base transceiver station.~~

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4 (original): The method according to claim 1, which comprises providing a variable transmission rate for transmitting at least one service with the connection.

5 (original): The method according to claim 4, which comprises providing a non-real-time service as the at least one service.

6 (original): The method according to claim 4, which comprises:

providing a real-time service as the at least one service; and carrying out an adaptive source coding.

7 (original): The method according to claim 1, which comprises allocating a specific transmission rate for a specific spectrum of path losses.

8 (original): The method according to claim 1, which comprises additionally varying the transmission rate in dependence of a relative transmitter power for the connection.

9 (original): The method according to claim 1, which comprises additionally varying the transmission rate in dependence of an absolute transmitter power for the connection.

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10 (original): The method according to claim 1, which comprises additionally varying the transmission rate in dependence of a current traffic load in a radio cell of the base transceiver station.

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11 (original): The method according to claim 1, which comprises varying the transmission rate in at least one of a downlink direction from the base transceiver station to the subscriber station and in an uplink direction from the subscriber station to the base transceiver station in dependence of respective path losses.

12 (original): The method according to claim 1, which comprises carrying out a subscriber separation in a radio communication system in accordance with a CDMA method.

13 (currently amended): The method according to claim 1, which comprises using orthogonal spreading codes in at least one of a downlink direction and and an uplink direction.

14 (original): The method according to claim 1, which comprises providing a set of transmission rates for the connection, the transmission rates being defined by respective spreading codes and respective spreading factors.

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15 (original): The method according to claim 1, which comprises carrying out, with a Radio Resource Control layer in a radio communication system, a long-term transmission rate allocation in dependence of at least one of the path loss and a transmitter power.

Al 16 (original): The method according to claim 15, which comprises varying the transmission rate by using a Transport Format Set configuration/reconfiguration procedure of the Radio Resource Control layer.

17 (original): The method according to claim 15, which comprises varying the transmission rate by using a Transport Format Set restriction procedure of the Radio Resource Control layer.

18 (original): The method according to claim 15, which comprises allocating the transmission rate by using a utilization-level and connection-acceptance control function of the Radio Resource Control layer.

19 (original): The method according to claim 1, which comprises:

defining a set of different transport formats when the connection is set up; and

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selecting, with a Media Access Control layer, a suitable one of the different transport formats.

20 (original): The method according to claim 1, which comprises:

defining a set of different transport formats when the connection is set up; and

selecting, with a Media Access Control layer, a suitable one of the different transport formats in a soft handover situation by taking into account all possible signal paths.

21 (original): The method according to claim 1, which comprises:

carrying out, with subscriber stations, path loss measurements for handover purposes; and

using the path loss measurements for the step of allocating the transmission rate.

22 (original): The method according to claim 1, which comprises initiating a variation of the transmission rate with

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an overload control function based on path loss measurements of the subscriber station.

23 (original): The method according to claim 1, which comprises signaling a transmitter power for a carrier of the base transceiver station to a radio network controller via an Iub interface.

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24 (original): The method according to claim 1, which comprises signaling a transmitter power for a carrier of the base transceiver station to a radio network controller via an Iub interface by adding an appropriate field within an Iub/Iur user frame protocol.

25 (original): The method according to claim 1, which comprises signaling a transmitter power for a carrier of the base transceiver station to a radio network controller via an Iub interface by using independent periodic signaling messages.

26 (original): The method according to claim 1, which comprises signaling a transmitter power for a carrier of the base transceiver station to a radio network controller via an Iub interface by using event-controlled signaling messages.

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27 (original): The method according to claim 1, which comprises allocating the transmission rate additionally for a shared channel in a downlink direction in dependence of a transmitter power.

28 (original): The method according to claim 1, which comprises carrying out a joint detection method at a reception end in at least one of a downlink direction and an uplink direction.

29 (original): The method according to claim 1, which comprises:

organizing the radio communication interface in accordance with a TDD method using a plurality of time slots forming a time frame; and

providing respective transmissions in a downlink direction and in an uplink direction at separate times in a same frequency band.

30 (original): The method according to claim 1, which comprises providing the radio communication system as a mobile radio system.

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31 (original): The method according to claim 1, which comprises providing the radio communication system as a wireless subscriber line system.

32 (currently amended): A radio communication system, comprising:

a subscriber station having an interference situation; and

a base transceiver station having a radio connection to said subscriber station, the radio connection having a given path loss and having an allocated transmission rate based on the given path loss and the interference situation at the location of the subscriber station.